

REMARKS

Applicants respectfully request reconsideration of the outstanding Office Action rejection in view of the following remarks.

Claims 15-24 and 26-29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Koppenhagen (WO 00/05951) and Martin (EP 0 279 068). Applicants respectfully submit that the combination of Koppenhagen and Martin would not render obvious the present invention and that one of ordinary skill would not have a reasonable expectation of success in combining the disclosures of Koppenhagen and Martin to arrive at the present invention.

Koppenhagen teaches an aqueous composition comprising pesticides which control weed growth. The Examiner contends that at page 23, first full paragraph, Koppenhagen teaches a capsule suspension containing two materials with one material being encapsulated and the other material contained in an aqueous phase. Upon further review of the disclosure at page 23 of Koppenhagen, Applicants respectfully point out that the capsule suspension contains two materials that are incompatible with each other. In other words, Koppenhagen teaches an aqueous composition comprising two different materials, one of which is encapsulated and the other which is contained in an aqueous phase. Furthermore, claims 29-32 of Koppenhagen (cited by the Examiner at the bottom of page 2 of the Office Action), along with claim 33, disclose that one pesticide is encapsulated and a second pesticide is contained in an aqueous phase. Moreover, claim 33 of Koppenhagen, which depends from claim 32, discloses that the pesticides are incompatible with one another. Accordingly, Applicants submit that

Kopenhagen teaches away from the present invention because Kopenhagen teaches an aqueous composition comprising two different pesticides and is silent with respect to pendimethalin.

Martin teaches oil-in-water emulsion compositions comprising pendimethalin. Applicants respectfully submit that the combination of these disclosures would not lead to a reasonable expectation of success with respect to the present invention. The combination of these disclosures would lead to an aqueous composition comprising either: 1) encapsulated particles of pendimethalin and a different pesticide contained in the aqueous phase or 2) pendimethalin contained in the aqueous phase and a different encapsulated pesticide.

Therefore, the teachings of Kopenhagen in combination with Martin cannot render obvious the present invention because the present invention is directed towards an aqueous composition comprising pendimethalin wherein some of the pendimethalin is encapsulated and some is present in the aqueous phase. Moreover, Kopenhagen only uses the disclosed arrangement because the two pesticides in the aqueous composition are incompatible. Hence, there would be no advantage to use the same pesticide both inside and outside the capsule of Kopenhagen. At most, one of ordinary skill in the art might use the pesticide of Martin as a substitute for one (but not both) of the pesticides in the two-pesticide composition of Kopenhagen.

Applicants respectfully submit that the present invention is directed to aqueous flowable compositions, i.e. aqueous suspension concentrates (see page 1, lines 2-14). With respect to the present invention, aqueous flowable compositions suffer from a poor storage stability since pendimethalin tends to form large crystals upon aging, which

results in an increased settling of pendimethalin particles (page 1, lines 16-25). The problem of storage stability can be overcome by micro encapsulation of pendimethalin. However, micro encapsulation of pendimethalin leads to a decrease in bioavailability since the micro encapsulation tends to slow the release of the active ingredient.

The inventors of the present invention surprisingly found that it is not necessary to completely encapsulate each particle of pendimethalin to obtain good storage stability of the aqueous flowable composition of the present invention. Rather, only a portion of the non-encapsulated pendimethalin particles of the present invention needs to be replaced by encapsulated pendimethalin particles to achieve a storage stability comparable to the storage stability of an aqueous flowable composition containing exclusively microencapsulated pendimethalin. This is confirmed by the storage stability tests presented on page 11, table 1 of the present specification. In particular, at 45° C the storage stability of a conventional suspension concentrate is rather poor while a composition according to the present invention which contains both encapsulated and non-encapsulated pendimethalin has a storage stability comparable to the storage stability of an aqueous flowable composition containing exclusively microencapsulated pendimethalin.


Applicants respectfully submit that this is an unexpected result since a skilled person would have expected that the portion of non-encapsulated pendimethalin would still be able to form large crystals upon aging resulting in an increased settling of the non-encapsulated pendimethalin particles. This undesirable process can be suppressed by the presence of microencapsulated pendimethalin. At the same time, the presence of the non-microencapsulated pendimethalin guarantees a reasonable early

bioavailability of pendimethalin. Furthermore, these compositions do not slow the initial release of active ingredient, as stated in the present specification at page 2, line 19. Therefore, the aqueous flowable composition according to the present invention combine the benefits of both conventional suspension concentrates of pendimethalin and suspension concentrates of microencapsulated pendimethalin.

Applicants respectfully submit that Koppenhagen and Martin does not provide any motivation to replace only a part of the non-encapsulated pendimethalin in conventional suspension concentrate by microencapsulated pendimethalin. Moreover, a skilled person would not have expected that such a composition combines the benefits of non-encapsulated pendimethalin and microencapsulated pendimethalin.

Applicants respectfully request reconsideration and withdrawal of the outstanding Office Action rejection in view of the foregoing remarks. Early and favorable action is awaited.

Respectfully submitted,

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